学位の種類	博士（医学）
報告番号	甲第１６１１号
学位記番号	第１１４６号
氏名	上嶋　佑樹
授与年月日	平成 30 年 3 月 26 日
学位論文の題名	A predictive diagnostic model using multiparametric MRI for differentiating uterine carcinosarcoma from carcinoma of the uterine corpus. （子宮癌肉腫と子宮体癌を鑑別する為の MRI による診断モデル） Jpn J Radiol. Vol. 35 : P.472-483, 2017
論文審査担当者	主査：　杉浦 真弓 副査：　高橋 智，芝本 雄太

A predictive diagnostic model using multiparametric MRI for differentiating uterine carcinosarcoma from carcinoma of the uterine corpus

Abstract

Purpose

Preoperative diagnosis of uterine carcinosarcoma is suggested by imaging and is made by endometrial sampling; however, both are inaccurate, and carcinosarcoma is often diagnosed after hysterectomy. The purpose of this study is constructing a diagnostic model for differentiating carcinosarcoma from carcinoma of the uterus.

Materials and Methods

Twenty-six patients with carcinosarcomas and 26 with uterine corpus carcinomas constituted a derivation cohort. Following nine MRI features of the tumors were evaluated; inhomogeneity, predominant signal intensity, presence of hyper- and hypo-intense areas, conspicuity of tumor margin, cervical canal extension on T2WI, presence of hyperintense areas on T1WI, contrast defect area volume percentage, and degree of enhancement. Two predictive models, with and without contrast, were constructed using multivariate logistic regression analysis. Fifteen other patients with carcinosarcomas and 30 patients with carcinomas constituted a validation cohort. Sensitivity and specificity of the models for the validation cohort were calculated.

Results

Inhomogeneity, predominant signal intensity on T2WI, and presence of hyperintense areas on T1WI were significant predictors in the unenhanced-MRI-based model. Presence of hyperintensity on T1WI, contrast defect area volume percentage, and degree of enhancement were significant predictors of the enhanced-MRI-based model. The sensitivity/specificity of unenhanced MRI were 87%/73% and 87%/70% by reviewer 1 and 2, respectively. The sensitivity/specificity of the enhanced-MRI-based model were 87%/70% by both reviewers.

Conclusions

Our diagnostic models can differentiate carcinosarcoma from carcinoma of the uterus with high sensitivity and moderate specificity.